CLAIMS

1. An indexable insert prepared by bonding a superhard sintered body (1) containing cubic boron nitride to at least the upper surface of an apical angle part (5) of a tool body (2) having a polygonal shape in top view and forming an edge and a chip breaker on said superhard sintered body (1), wherein

a chamfer (7) is formed on the intersection between the upper surface and the side surface of said superhard sintered body (1),

said chip breaker has a substantially symmetrical shape with respect to a section bisecting the apical angle of said apical angle part (5), and has a protrusion (6) and a flat part (8) provided between said protrusion (6) and said apical angle part (5),

a pair of ridges (6b, 6c) on the apex of said protrusion (6) are linear or arcuate,

θ is in the range of $6/10 \times \alpha \leq \theta \leq 90 - 1/10 \times \alpha$ assuming that θ represents an angle formed by the linear ridges of said protrusion (6) or a tangential line for said arcuate ridges at a point bisecting the arcuate ridges of said protrusion and a bisector (9a) for said apical angle and α represents said apical angle, and

a line segmental ratio is in the range of $0.9 \leq L1'/L1 \leq 1.1$ assuming that $L1$ represents the length of a line segment connecting a first intersection (P) between said pair of ridges (6b, 6c) on the apex of said protrusion (6) and an extreme point (T) of first said ridge (6b) and $L1'$ represents the length of a line segment connecting an extreme point (T) of second said ridge (6c) and said first intersection (P), and $0.2 \leq L1/L2 \leq 0.8$ assuming that $L2$ represents the length of a line segment connecting a second intersection (Q) between a straight line passing through the extreme point (S) of said first ridge (6b) from said first intersection (P) and the outer periphery of said tool body (2) and said first intersection (P).

2. The indexable insert according to claim 1, wherein the surface roughness of said flat part (8) of the superhard sintered body (1) and said chamfer (7) adjacent to said

flat part (8) is at least 0.1 μm and less than 0.5 μm in ten point height of irregularities (Rz JIS 94).

3.   The indexable insert according to claim 1, wherein an angle formed by said chamfer (7) and the upper surface of said tool body (2) is in the range of at least 15° and not more than 45°.

4.   The indexable insert according to claim 1, wherein the width of said chamfer (7) on the forward end (9) of said apical angle part (5) is in the range of at least 0.02 mm and not more than 0.2 mm in top view.

5.   The indexable insert according to claim 1, wherein the distance between the forward end (9) of said apical angle part (5) and said first intersection (P) is in the range of at least 0.1 mm and not more than 2 mm in top view.

6.   The indexable insert according to claim 1, wherein the difference between the heights of the forward end (9) of said apical angle part (5) and said first intersection (P) is in the range of at least 0.02 mm and not more than 0.5 mm.

7.   The indexable insert according to claim 1, wherein the shear angle of said flat part (8) is 0°.

8.   The indexable insert according to claim 1, wherein a coating layer consisting of at least one element selected from a group consisting of the elements belonging to the groups 4a, 5a and 6a of the periodic table, Al, Si and B, a nitride, a carbide or an oxide of at least one metal selected from said group or a solid solution thereof is formed on the surface of said superhard sintered body (1).

9. The indexable insert according to claim 1, wherein the surface roughness of said flat part (8) of said superhard sintered body (1) formed with a coating layer on the surface thereof and said chamfer (7) adjacent to said flat part (8) is at least 0.1 μm and not more than 1.0 μm in ten point height of irregularities (Rz JIS 94).